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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/712,294

11/13/2003

Dimitri T. Azar

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EXAMINER

MATTHEWS, WILLIAM H

ART UNIT

PAPER NUMBER

3774

NOTIFICATION DATE

DELIVERY MODE

04/16/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No. 10/712,294	Applicant(s) AZAR, DIMITRI T.	
	Examiner William H. Matthews (Howie)	Art Unit 3774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,8-11,13-18,20-23 and 28-36 is/are pending in the application.
- 4a) Of the above claim(s) 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,8-11,13-17,20-23 and 28-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

With respect to claims 1 and 29, Applicant argues Kern lacks “wavefront data is configured according to a high-order aberration correction to modify the characteristic function of the optical element to reduce high order aberration in the eye”. Applicant further argues the instructions, or data, in Kern fails to meet the claimed wavefront data. Applicant suggests the instructions are incapable of controlling the arrangement of electrodes that are activated. This is not understood as Kern clearly describes a) electrodes and b) instructions to control the voltage applied to each individually addressable electrode (lines 18-25 of col. 3). Thus the instructions control the electrodes. Without the instructions, the electrodes cannot be activated to achieve the functions (such as aspheric effects to correct high order aberrations). Clearly the instructions are more than a generic on/off signal as shown in lines 47-52 of col. 5 (electrodes in the form of a dot matrix of individually addressable dots).

With respect to claims 23 and 28, Applicant argues Rizzo’s teachings do not suggest basing the wavefront data on different estimates of distances by the rangefinder. Firstly Examiner notes that the limitations of claims 23 and 28 are of intended use because the pending claims are not directed to a method. Secondly, the wavefront data is considered to include the combined instructions which can change according to rangefinder signals. Thus the high order aberration correction provided by the wavefront data would inherently be “dependent upon” varying rangefinder signals. In other words, the high order aberration correction could be enhanced or degraded by

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a requirement for near or far focus, which is equivalent to having different high order aberration correction signals. In addition, it is noted that Kern disclose a sensor 60 to provide information “for varying power, axis, color correction, and/or light intensity entering the lens” (lines 34-36 of col. 3). The sensor appears analogous in function to a rangefinder although distance measuring is not described. Kern further disclose, with respect to the electrode arrangements, “various combinations may be provided for creating a most useful aspheric effect” (lines 45-47 of col. 5). Thus Kern discloses varying more than one variable at once according to a signal provided by a sensor, and suggests high order aberration may be corrected by more than one electrode arrangement.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,9-11,15-17,21,22 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Kern USPN 4601545.

3. Kern disclose in c3:9-49, c4:10-24, c5:14-25, c5:37-65, c6:12-51 an intraocular lens comprising variable refraction optical element 52, memory element (RAM or ROM included in CPU), actuators 71/62/64/73/75 (electrode matrix), controller 54/58 (CPU or gate). The memory element stores instructions for controlling the lens (c3:20-23), and

Kern disclose controlling index of refraction at discrete points (c4:10-24) and creating an aspheric lens effect (c5:45-47) which reduces high-order, or spherical, aberration.

Regarding claim 10, Figure 1 and 5D show a plurality of individually addressable electrodes controlled by parallel signals.

Regarding claims 15-17, the limitations recited are of intended use (see MPEP 2114) and do not add structural limitations to the optical element. The Kern prosthesis is capable of use in any chamber or lens bag of any patient.

Regarding claim 22, the memory element may be rewritable RAM such that the optical element is modifiable by wireless transmission.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8,13,14,23, 28 and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kern USPN 4601545 as applied to claims 1,9-11,15-17,21-22,27 above, and further in view of Rizzo, III USPN 5800530.

Kern meet the structural limitations of claims 8,13,14,23,28 and 32-36 as described above but lack the express written disclosure of including a rangefinder. Rizzo, III teach in figure 1, c2:15-56, and c3:40-49 an intraocular lens comprising variable focus lens controlled by an actuator and CPU which receive signals from a

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rangefinder 24 in order to provide accurate distance estimates to determine proper accommodation levels.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the intraocular lens system disclosed by Kern '545 to include a rangefinder in communication with a CPU, as taught by Rizzo, III '530, in order provide accurate distance estimates to determine proper accommodation levels.

Regarding claims 23 and 28, the wavefront data is considered to include the instructions of Kern which modify the lens power and aberration correction.

Claim 32 is considered functional language which fails to structurally differentiate data that is not based on "predicted changes".

With further regard to claim 33-36, lines 10-17 of claim 33 and claims 34-36 are of intended use nature and do not require 1st and 2nd wavefront data or high order aberration corrections. As stated above, Kern describes a "reprogrammable" memory element which is capable of meeting these limitations. Also note Kern describe individually addressing a plurality of points in a grid, thus meeting the limitation regarding a two-dimensional grid of points.

6. Claims 20,30,31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kern USPN 4601545 as applied to claims 1,9-11,15-17,21-22,24-25 above, and further in view of Sandsted et al. USPN 6749632.

It is noted that claim 20 recites a product by process limitation (see MPEP 2113). However, in view of the structure implied by a unique measurement, Kern lack the express written disclosure of the instructions stored in the memory device being based

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on wavefront measurement performed on a patient. Sandsted et al. teach, in c4:23-67, adjusting an intraocular lens wavefront profile in accordance with wavefront data measured on a patient in order to accurately correct for high-order aberrations and power requirements specific to said patient.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the intraocular lens system disclosed by Kern '545 to include data based on a wavefront measurement performed on a patient at far and near focusing powers, as taught by Sandsted et al. '632, in order to accurately correct for high-order aberrations specific to said patient.

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Matthews (Howie) whose telephone number is 571-272-4753. The examiner can normally be reached on Monday-Friday 10-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine M. McDermott can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William H. Matthews/
Primary Examiner
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